

CLEAN VERSION OF THE CLAIMS

1. A method for obtaining a biologically active botulinum toxin, comprising the steps of:

(a) providing a fermentation medium of which not more than about 1 weight percent comprises an animal product selected from the group consisting of an immunoglobulin, a meat product, a meat digest, a meat by product, milk, a dairy product, a dairy digest, blood pooled product, a blood product and an animal protein;

(b) culturing a *Clostridium botulinum* bacterium in the fermentation medium under conditions which permit production of a botulinum toxin, wherein the culturing is performed until cell density of the fermentation medium decreases due to cell lysis and;

(c) recovering a biologically active botulinum toxin from the fermentation medium, wherein the fermentation medium comprises a protein obtained from yeast or from a vegetable, wherein the vegetable is selected from the group consisting of a soy, malt and corn.

5. The method of claim 1, wherein in the step of culturing, the culturing is performed until at least 48 hours after initial drop in cell density due to cell lysis.

13. A method for making a substantially animal product free pharmaceutical composition in which the active ingredient is a botulinum toxin, the method comprising the steps of:

(a) obtaining a biologically active botulinum toxin by;

(i) providing a fermentation medium of which not more than about 1 weight percent is an animal product selected from the group consisting of an immunoglobulin, a meat product, a meat digest, a meat by product, milk, a dairy product, a dairy digest, blood pooled product, a blood product and an animal protein;

- (ii) culturing a *Clostridium botulinum* in the fermentation medium under conditions which permit production of a botulinum toxin, and;
 - (iii) recovering a biologically active botulinum toxin from the fermentation medium;
 - (b) formulating the botulinum toxin with a suitable excipient, thereby making a substantially animal product free pharmaceutical composition in which the active ingredient is a botulinum toxin,
- wherein the fermentation medium comprises a protein product obtained from yeast or from a vegetable, wherein the vegetable is selected from the group consisting of a soy, malt and corn.

14. The method of claim 1, wherein the botulinum toxin is selected from the group consisting of botulinum toxins types A, B, C, D, E, F and G.

15. The method of claim 1, wherein the botulinum toxin is a botulinum toxin types A.

16. The method of claim 1, wherein the botulinum toxin is a purified botulinum toxin.

17. A method for obtaining a biologically active botulinum toxin type A, the method comprising the steps of:

- (a) providing a fermentation medium of which not more than about 1 weight percent comprises an animal product selected from the group consisting of an immunoglobulin, a meat product, a meat digest, a meat by product, milk, a dairy product, a dairy digest, blood pooled product, a blood product and an animal protein;
- (b) culturing a *Clostridium botulinum* bacterium in the fermentation medium under conditions which permit production of a botulinum toxin, , wherein the culturing is performed until cell density of the fermentation medium decreases due to cell lysis. and;
- (c) recovering a biologically active botulinum toxin from the fermentation medium,

wherein the fermentation medium comprises a protein obtained from yeast or from a vegetable, wherein the vegetable is selected from the group consisting of a soy, malt and corn.

18. The method of claim 13, wherein the botulinum toxin is selected from the group consisting of botulinum toxins types A, B, C, D, E, F and G.

19. The method of claim 13, wherein the botulinum toxin is a botulinum toxin types A.

20. The method of claim 13, wherein the botulinum toxin is a purified botulinum toxin.

21. A method for making a substantially animal product free pharmaceutical composition in which the active ingredient is a botulinum toxin type A, the method comprising the steps of:

(a) obtaining a biologically active botulinum toxin type A by;

(i) providing a fermentation medium of which not more than about 1 weight percent is an animal product selected from the group consisting of an immunoglobulin, a meat product, a meat digest, a meat by product, milk, a dairy product, a dairy digest, blood pooled product, a blood product and an animal protein;

(ii) culturing a *Clostridium botulinum* in the fermentation medium under conditions which permit production of a botulinum toxin type A, and;

(iii) recovering a biologically active botulinum toxin type A from the fermentation medium;

(b) formulating the botulinum toxin type A with a suitable excipient, thereby making a substantially animal product free pharmaceutical composition in which the active ingredient is a botulinum toxin type A,

wherein the fermentation medium comprises a protein product obtained from yeast or from a vegetable, wherein the vegetable is selected from the group consisting of a soy, malt and corn.